

(No Model.)

J. H. PURDY.

BROOCH PIN.

No. 294,075.

Patented Feb. 26, 1884.

Fig. 1.

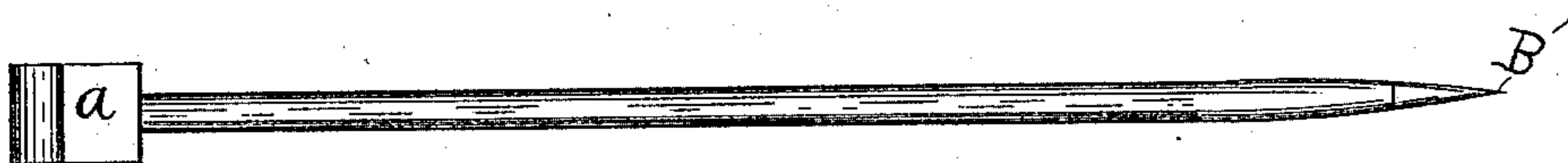
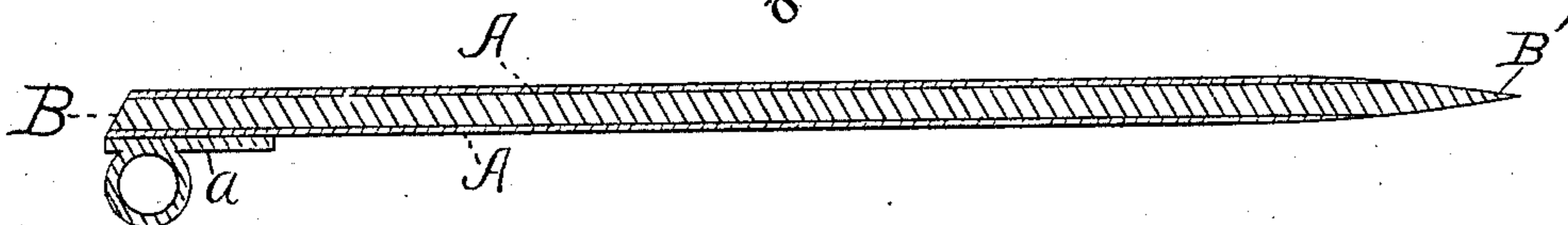


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN H. PURDY, OF CHICAGO, ILLINOIS.

## BROOCH-PIN.

SPECIFICATION forming part of Letters Patent No. 294,075, dated February 26, 1884.

Application filed August 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. PURDY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Brooch-Pins, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a bottom view, and Fig. 2 is a vertical longitudinal sectional view, of my improved pin.

Like letters of reference indicate like parts in the different figures.

Great difficulty has been heretofore experienced in the manufacture of brooch-pins, caused by the softening of the metal of the pin consequent upon soldering the same to the socket-plate. This causes the pin to bend easily, and renders it practically useless, unless the same is afterward retempered. This is accomplished by burnishing, which is not only costly, on account of the labor involved, but reduces the size of the pin at the joint to such an extent that much of the stiffness gained by hardening is lost in the consequent reduction of size.

The object of my invention is to overcome this difficulty and to produce a brooch-pin which, while it presents the appearance and advantages of the ordinary brooch-pin, may be given a hard and springy temper, either as a result of the heat required to solder said socket-plate thereon, or by any well-known means by which metal may be tempered without reducing its size or without resort to burnishing. I accomplish said result by preferably soldering and drawing gold, silver, or any suitable composition of metals upon or over a steel wire, said wire forming the core or body of the pin, and serving to impart to the same stiffness and strength, while the outer coating or envelope of metal or metallic composition not only gives it a better appearance, but acts as a protector to preserve the same from rusting, all of which will be hereinafter more fully described, and definitely pointed out in the claims.

In the drawings, Figure 1 represents my improved brooch-pin with the ordinary socket-

plate, *a*, soldered thereto. Fig. 2 is a sectional view cut lengthwise of the same.

B represents the steel wire, while A A indicate the metal envelope or covering above mentioned. Said covering A A may be of gold, silver, brass, or any suitable metallic composition. As the socket-plate *a* is soldered to the outer surface, A, the steel core becomes heated, and upon plunging the same into water or oil, or otherwise suddenly cooling it, a spring-temper is imparted thereto, and it is made to possess all the stiffness of a steel pin with all the other advantages of one made from the ordinary metals used for that purpose.

The pin, as a whole, may, if preferred, be tempered in any well-known manner after the socket or hinge plate has been soldered or brazed thereon. Aside from its increased stiffness, another advantage is derived from its elasticity, which tends to keep the same more securely fastened when in use.

In forming the pin from the wire, it is obvious that the outer coating, A, will be ground off at the point B', leaving said point composed entirely of steel, as shown. This is an obvious advantage, in that it will the more readily penetrate any hard material without bending, and will retain its sharpness much better.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A brooch-pin consisting of a steel wire, over which a sheath or envelope of gold, silver, or metallic composition is drawn, substantially as and for the purposes set forth.

2. As a new article of manufacture, a brooch-pin consisting of a pointed steel wire provided with a sheath or envelope of gold, silver, or other ductile metal or metallic composition drawn thereover and attached thereto, in the manner and for the purposes described.

JOHN H. PURDY.

Witnesses:

E. J. HITCHCOCK,  
FRED PURDY.